

ABSTRACT

An optical coupling system having an integrated micro lens system for achieving high coupling efficiency between an optoelectronic element and an optical medium such as an optical fiber. The system may have a posts formed on the wafer incorporating the optoelectronic elements. The posts may have micro lenses formed on them. The posts with their respective micro lenses may be situated over respective optoelectronic elements. A window may be formed over the wafer components that may include micro lenses, posts and optoelectronic elements. The window may be part of the package that hermetically seals these components. An optical fiber or an array of fibers may be positioned proximate to the window for the receiving or transmitting of light. The optical coupling system may instead have an aspherical lens situated between the optoelectronic component and optical fiber. The fiber may be in contact with the near lens surface.